Lab 6

BIEN 4320

12/8/21

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Ref A Spectra

mua in cm $^{-1}$

Wavelengths (nm)

Ref B Spectra

mua in cm $^{-1}$

Wavelengths (nm)

Ref C Spectra

mua in cm^{-1} vs Wavelengths (nm)

Test Sample 1 Spectra

mua in cm^{-1} vs Wavelengths (nm)

Test Sample 2 Spectra

mua in cm $^{-1}$ vs Wavelengths (nm)

Test Sample 3 Spectra

mua in cm $^{-1}$ vs Wavelengths (nm)
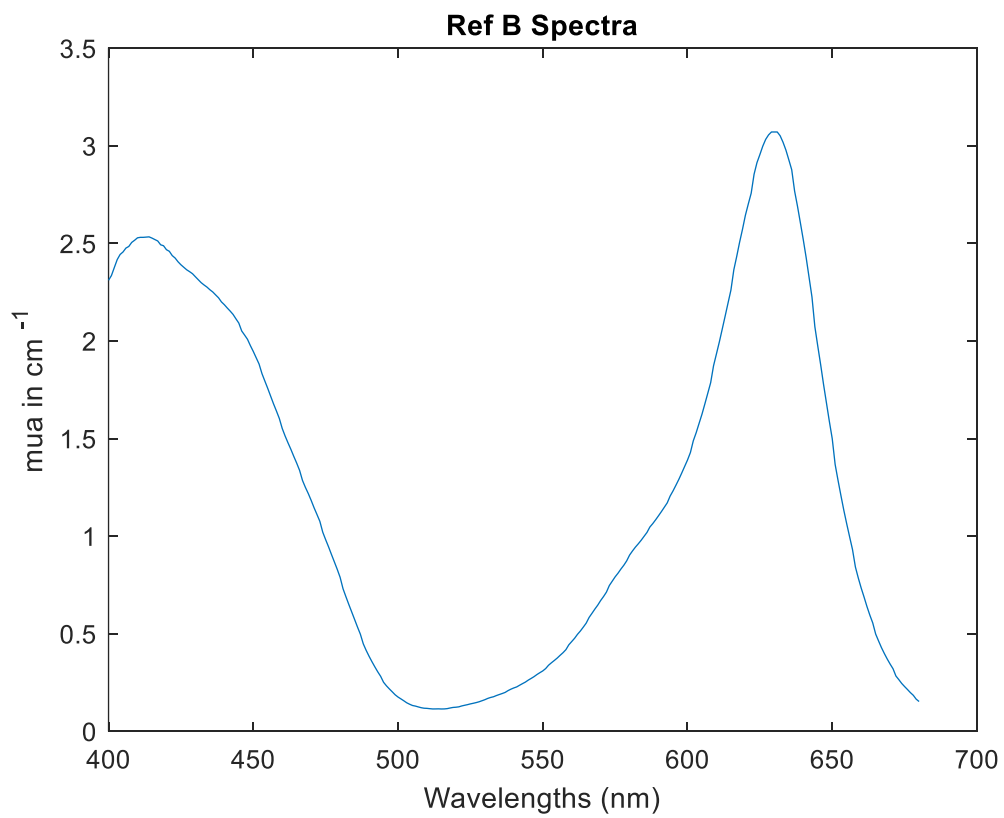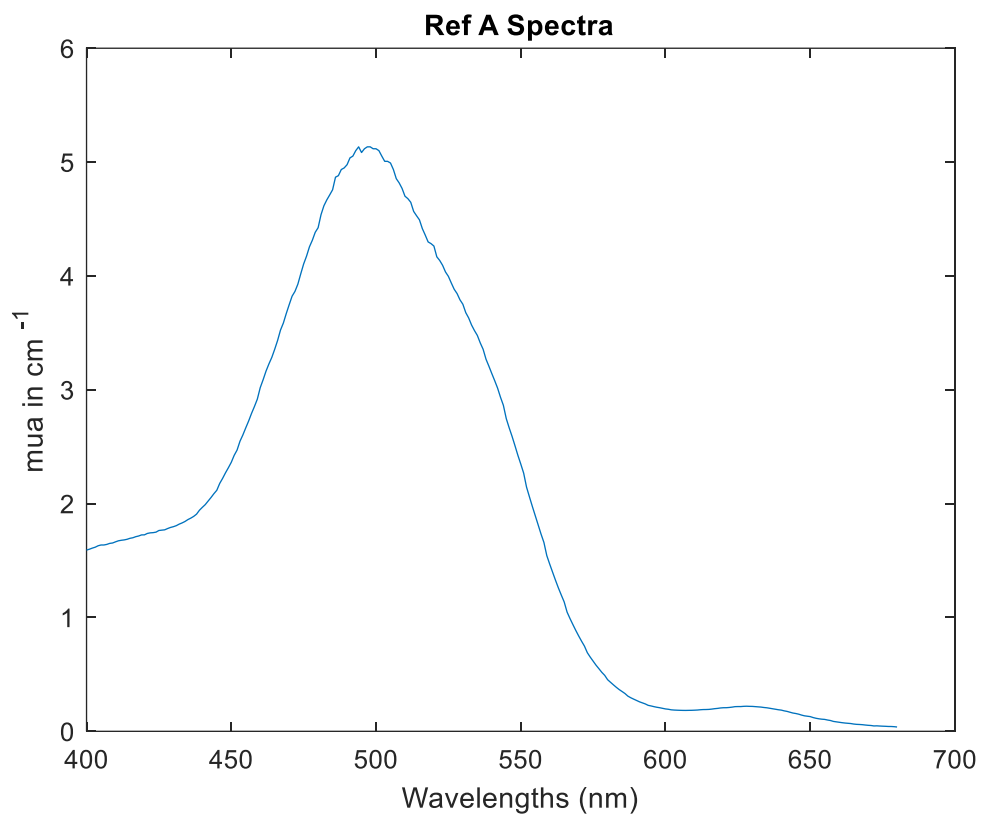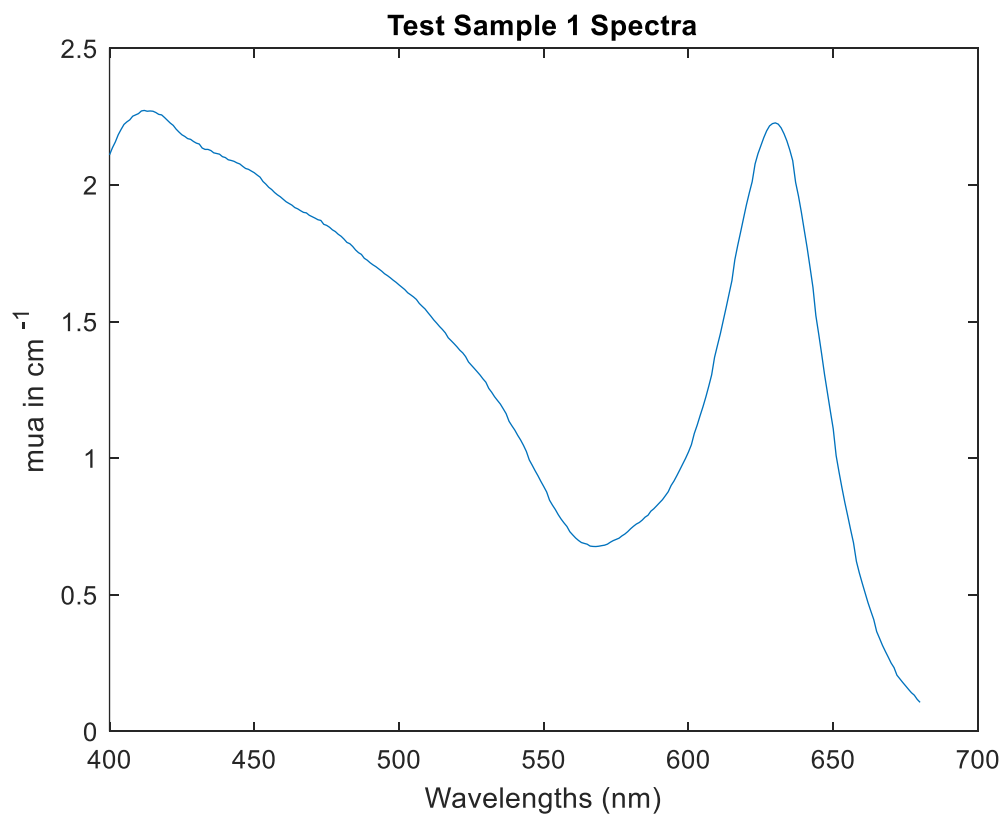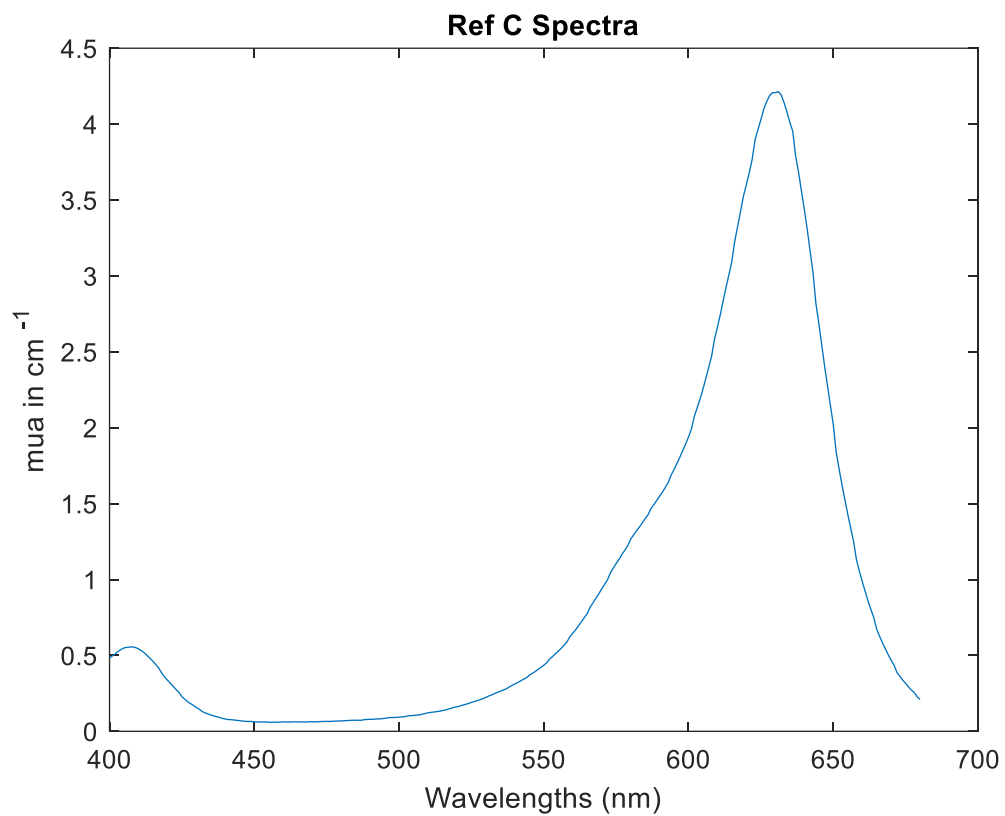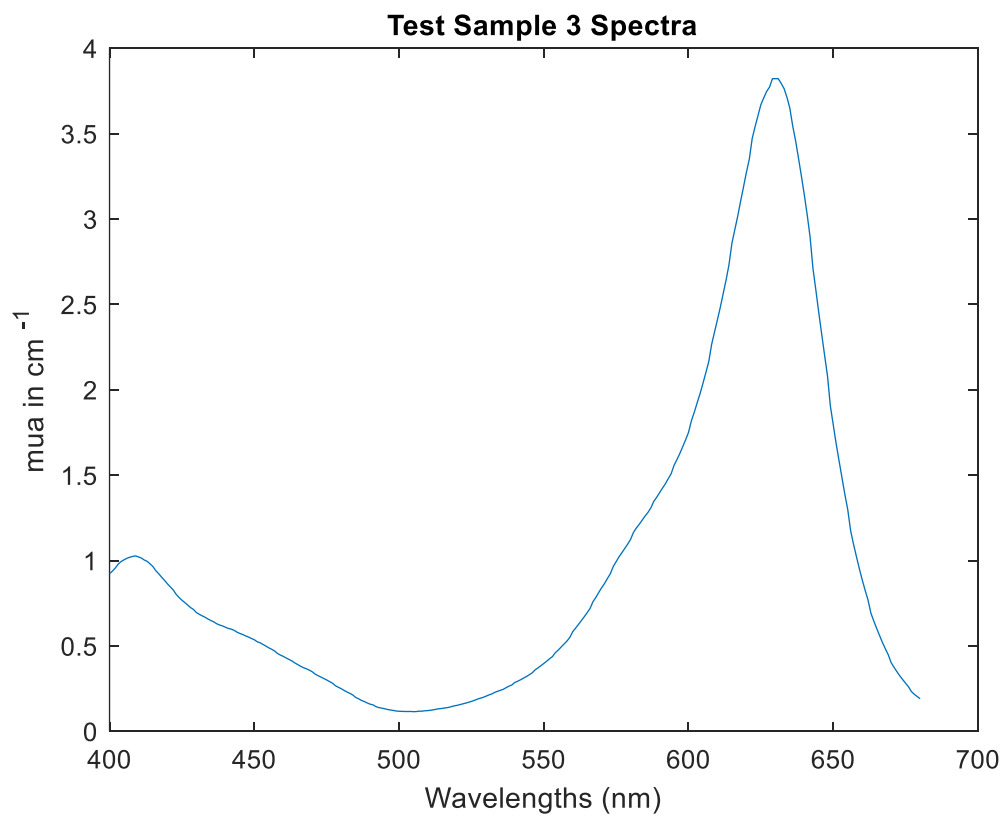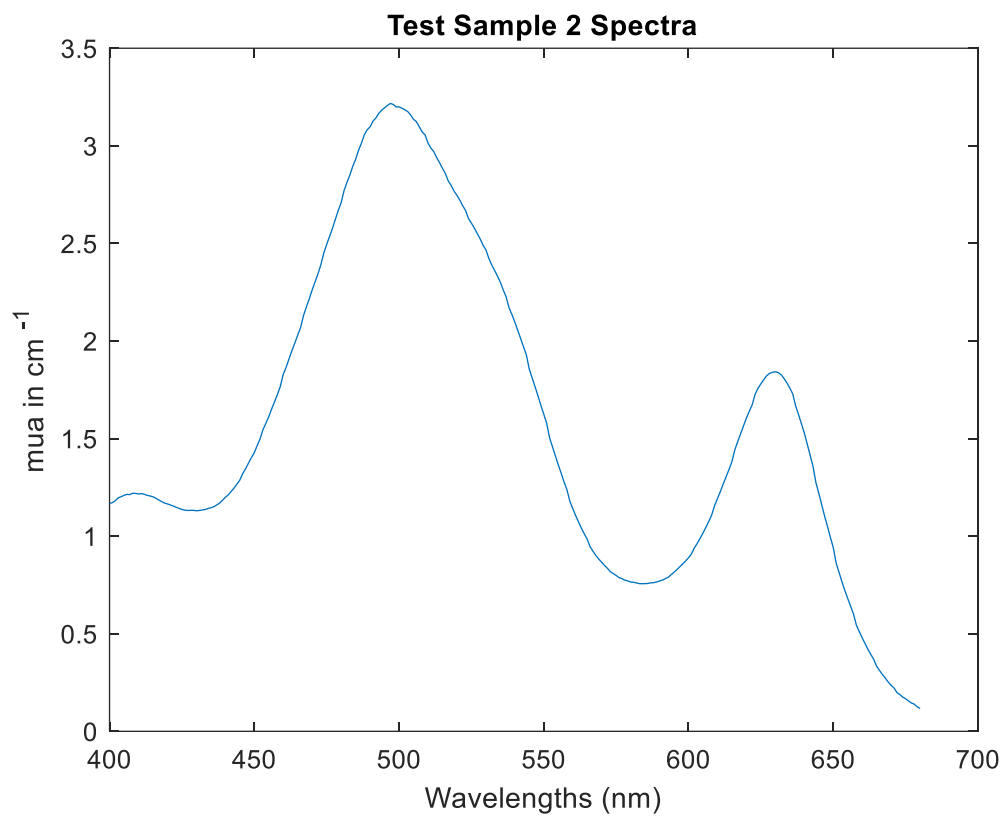
Solution Name	Concentration of A	Concentration of B	Concentration of C
Test Sample 1	0.2958	0.6978	0.0
Test Sample 2	0.6152	0.0	0.4066
Test Sample 3	0.0	.2511	.7236

1. What are the major sources of error in the experiment you just conducted?
   - Any sort of contamination on sample cuvettes would drastically alter the absorbance value given by the spectrometer. This particularly applies to the blank sample which would skew all following measurements. Contamination of the samples themselves would result in error of a similar manner

2. Is Beer-Lambert's Law applicable for any wavelength? Explain.
   - In this experiment Beer-Lambert's law is mostly applicable for wavelengths included in the visible light spectrum because it is typically used when looking for the wavelength of maximum absorbance.